

ABSTRACT OF THE DISCLOSURE

A receiver including an analog Barker detector including digital processing logic, a radio and an analog-to-digital converter (ADC). The digital processing logic has a receive signal input for processing digital baseband signals and a power activation input for receiving a detection signal. The radio receives and converts radio frequency (RF) signals into analog baseband signals, and includes a Barker matched filter coupled to receive the analog baseband signals, an envelope detector, a peak detector, and a counter circuit. The counter circuit detects Barker signals and provides the detection signal for powering up the digital processing logic. The digital processing logic is powered down between signal acquisitions to conserve power and powers up in response to the detection signal. The ADC may also be powered up and down in a similar manner to conserve additional power.